

Nutrition and Exercise Science Program Guidance

If you would like to create an integrated nutrition and exercise science program, or offer a minor in exercise science to nutrition majors, but have questions about how to begin or about program planning or goals, the following information may be helpful.

Program Challenges:

There is no question that obesity and chronic diseases are on the rise, especially in children and young adults. Part of the prevention and treatment of these health issues includes incorporating healthy eating and physical activity into all aspects of life and developing communities and health policies that encourage active lifestyles and healthy eating. Future nutrition professionals need to be trained to address these growing issues, including understanding how physical activity impacts health and body size.

Program Definition:

Students with undergraduate dietetics or nutrition science degrees, who integrate exercise science into their curriculum, have broad career options. This integration can come in many forms: minor in exercise science, exercise science integrated into the nutrition curriculum, or a dual degree program in both nutrition and exercise science. Programs that offer the nutrition and exercise science option are designed for students interested in planning, conducting, and managing health-related nutrition, and fitness and wellness programs in a variety of settings. Graduates have a variety of career options available to them, including clinical, community, school, or consultant dietitian; cardiac rehabilitation program; sports nutrition, corporate wellness, and health club settings; community health promotion programs; and community fitness centers, health clubs, health promotion and education, and weight management programs.

Program Outcomes:

Programs should prepare students in the following general areas to:

- integrate and apply scientific-based exercise science and nutrition concepts and principles;
- demonstrate an active commitment to positively contributing to the health and well-being of individuals and communities;
- meet the challenges associated with obesity, its prevention, and the increased risk of chronic disease;
- understand the issues facing health professionals in the field, including environmental, ethical, and cultural components;

- find, evaluate, and interpret research literature, especially research related to the interaction between nutrition and exercise for the maintenance of optimal health;
- evaluate information, including identifying the difference between fact and claims, sources of bias, and conflicts of interest;
- demonstrate the ability to communicate science-based nutrition and exercise information to the public and other health professionals, and work in teams to achieve goals and solve problems; and
- understand the challenges of changing health behaviors at all levels—individual, family, and community.

Program Recommendations:

All dietetics programs are required to meet the nutrition knowledge and skills outlined (didactic course work) by the American Dietetic Association (ADA) to become a registered dietitian (RD). However, within this framework, the following program recommendations could be made to prepare students to address the health, obesity, and chronic disease issues facing our nation and world.

- Combine a nutrition/dietetics curriculum with coursework in exercise physiology and health promotion.
- Apply an interdisciplinary approach, including biological, nutritional, social/psychological, environmental and clinical input.
- Design a program for career goals for becoming an RD with the ADA and certification as an exercise specialist or health fitness instructor with the American College of Sports Medicine.
- Design program options for students interested in sport nutrition and eventual advanced certification through the ADA as a certified specialist in sport dietetics.
- Design integrated dual degree programs that efficiently combine the nutrition/dietetics curriculum with degree requirements of exercise science.

Examples of Courses/Curriculum:

The following courses could be incorporated into a didactic program in dietetics (DPD). The courses in bold type are already part of most DPD programs. The other courses listed could be incorporated as part of the knowledge and skills required by the DPD program or suggested as electives. In doing this, courses build to provide students with a knowledge and skill set to build a healthy lifestyle for themselves, their clients, communities, and the nation. They can also apply these skills for the prevention and treatment of obesity and chronic disease.

- **General chemistry, organic chemistry, biochemistry (lecture and labs)**
- **Human anatomy and physiology (lecture and lab)**
- **Basic biology (lecture and lab)**

- Exercise physiology
- Nutrition for exercise and sport
- Wellness and health promotion or health behavior theory
- Obesity and regulation of body weight or energy balance and weight management
- Epidemiology of health, nutrition, and physical activity

Core classes that might be part of an exercise science minor or option could include:

- exercise physiology/kinesiology;
- physical fitness and conditioning, evaluation, and prescription;
- principles of exercise testing and assessment;
- techniques of teaching group fitness; and
- management and evaluation of health-fitness programs.